

REMARKS

Status of the Application:

Claims 1-92 are the claims of record of the application. Claims 24-58 and 60-92 were withdrawn from consideration. Claim 59 was allowed. Claims 1-9 and 13-23 were rejected. Claims 10-12 have been objected to but would be allowable if re-written in independent form.

Claim Amendment

Applicants have amended claim 59 to correct a typographical error.

Claim Rejections -35 USC § 102

In paragraph 3 of the office action, claims 1-9 and 13-23 have been rejected under 35 USC 102(e) as being anticipated by De La Torre (US 6,741,735).

De La Torre describes method for *compensating for dot gain in printing* with stochastic screens comprises obtaining continuous tone CMYK files and screening the files at a resolution that is lower than the resolution of an output device that will be used to print the files. The lower resolution stochastically screened files are then expanded to the resolution of the output device, thereby effectively increasing the size of the dots by creating a number of subdots for each dot in the lower resolution stochastically screened files. *Subdots* within the expanded stochastically screened files *can then be selectively removed to compensate for dot gain*.

Of course dot gain is a phenomenon in printing and graphic arts whereby printed halftone dots are perceived and actually printed bigger than intended. *De La Torre's invention thus is concerned with reproducing densities between 0 and 100% in order to deal with such dot gain*. Applicant admits that De La Torre's method would correspond to dot "perforations"—holes in the halftone pattern. However, in De La Torre, these are for areas that reproduce regions of less than 100% density, i.e., for non solid areas.

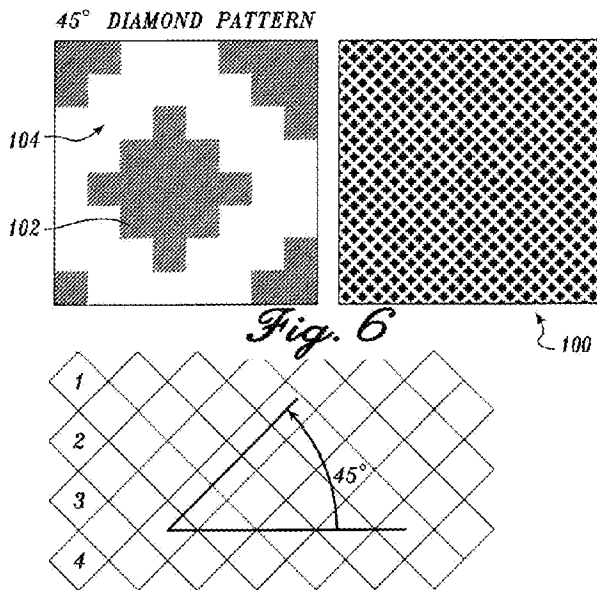
Applicants' invention relates to **printing solid areas**. Applicants discovered that including grooves as perforations in solid areas, i.e., areas that do not include halftone dots, improves the ink transfer of these solid areas.

Note that Applicants also perforate non-solid areas with the grooves, but this only to make the transition from halftones (less than 100% densities) rasters to 100% groovy-perforated solids such that there are no tonal jumps.

Independent Clams 1 and 13:

Referring now to claim 1 and its rejection over De La Torre, Applicants claim a relief plate for printing an image, said image including ***an area to be printed solid***, the plate including ***in the area to be printed solid*** a set of line pattern perforations designed to not carry ink on the plate.

The examiner asserts this is disclosed in De La Torre's FIG. 6 and the description thereof in column 5, lines 8–21. De La Torre's Figure 6 is reproduced here.



With respect to claim 1, Applicant claims specific line patterns – what in the specification the Applicant calls “grooves” that are applied to ***solid areas***. Applicants respectfully disagree that De La Torre shows Applicants' grooves in solid areas. De La Torre's FIG. 6 only shows a diamond screen raster (ref. numeral 100). The two-dimensional 45-degree “grooves” (ref. numeral 104) are the spaces separating the diamond dots

(ref. numeral 102) and vary in size. The zoomed-in diamond shape (top left picture of De La Torre's FIG. 6) is solid (there may be thin lines visible within dot 102, but these are not grooves, they are just the way La Torre's drawings render solid black). De La Torre here describes scaling a diamond screen of up by first scaling up the white grooves, then perforating the diamond shape with randomly ordered white dots to alter dot gain. Here is

a quote from De La Torre: “FIG. 6 illustrates one *common stochastic screen pattern used in gravure and flexography printing*. The pattern 100 is a diamond shape 102 that is surrounded by 45.degree clear areas of grooves 104. For gravure, both the size of the center diamond and the size of the 45.degree grooves are equally important and independent of each other. In the example shown, the center diamond had a width of 5 dots and has a groove that is 3 dots wide. The size could be varied such as having a center diamond that is 15 dots wide surrounded by a groove that is 2 dots wide depending on the resolution desired. *Individual subdots of center diamonds can be selectively removed to compensate for the dot gain that occurs in the printing process.*”

Thus, in De La Torre’s FIG. 6, the (black) diamond pattern is of dots whose size varies. The white 2D grooves that are indicated on the figure actually create a 2D raster out of a black surface: They create isolated black entities as shown on the top left part of De La Torre’s FIG. 6. Each one of these that has individual subdots removed.

De La Torre in FIG. 6 or elsewhere does not describe a solid area with grooves therein to better distribute ink in the solid area. Applicants’ invention, per claim 1, results in a perforated black mask (solid area) with white lines, typically leaving no isolated black dots of varying size.

Applicants respectfully submit that the Examiner has failed to show that De La Torre teaches claim 1. Withdrawal of the rejection and allowance of the claim are respectfully requested. Allowance of all rejected dependent claims also is requested.

Claim 13 recited an area of the plate for solid region reproduction that includes a set of relatively thin grooves intended to not receive ink by the inking system. For the reasons stated above for claim 1, Applicant respectfully submit that the Examiner has failed also to show that De La Torre teaches claim 13. Withdrawal of the rejection and allowance of the claim are respectfully requested. Allowance of all rejected dependent claims also is requested.

For these reasons, and in view of the above amendment, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Conclusion

The Applicants believe all of Examiner's rejections have been overcome with respect to all remaining claims (as amended), and that the remaining claims are allowable. Action to that end is respectfully requested.

If the Examiner has any questions or comments that would advance the prosecution and allowance of this application, an email message to the undersigned at dov@inventek.com, or a telephone call to the undersigned at +1-510-547-3378 is requested.

Respectfully Submitted,

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Date

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